Claims:

We claim:

1. A process for supplying bubbles to a filtering membrane immersed in a tank containing water comprising the steps of:

a) flowing a gas to an aerator to produce bubbles from the aerator which contact the filtering membrane;

b) after step a), reducing the pressure in the aerator such that water in the tank enters the aerator and wets solids accumulated in the aerator; and,

c) after step b), returning to step a).

2. The process of claim 1 wherein step b) comprises reducing the rate of flow of gas to the aerator by at least half.

3. The process of claim 1 wherein step b) comprises stopping the flow of gas to the aerator.

4. The process of claim 1 wherein step b) comprises venting the aerator to atmosphere.

5. The process of claim 1 wherein the aerator is vented to atmosphere by opening a valve in a pipe in communication with the aerator.

6. The process of claim 1 wherein step b) is performed periodically, successive performances of step b) being separated by a pre-determined time interval.

7. The process of claim 1 wherein the aerator has holes in its bottom surface.

8. An apparatus for aerating a membrane immersed in a tank containing water, comprising:

a) an aerator located to provide bubbles which contact the membrane;

b) a pipe connecting the aerator to an air supply source; and,

c) a pipe connecting the aerator to atmosphere through a valve.

9. The apparatus of claim 8 wherein the aerator has a series of holes at the bottom of the aerator.